AUTHOR INDEX

Allen, R. H., Common collimator approach to alignment and performance testing of laser ranger/designators and thermal imaging systems, a, 71
Anderson, R. H., Shearing interferometer block as a precision angular datum reference, 57
Appert, Q., Antares automatic beam alignment system, 214
Boyd, Robert D., Evolution of Shiva laser alignment systems, 204
Breckinridge, J. B., Optical alignment of high resolution Fourier transform spectrometers, 94
Callender, A. B., Active alignment of the feedback mirror in a half symmetrical unstable resonator with an inner axicon, 233
Carson, Donald G., Alignment of large aperture optical systems using a bi-directional telescope and a variable offset periscope, 51
Cassie, A. G., Optical alignment of high resolution Fourier transform spectrometers, 94
Clark, Walter M., Boresighting of airborne laser designator systems, 78
Collyer, P. Wardham, Three-axis angular monitoring system for the magnetic field satellite (MAGSAT) mission, a, 179
Colston, Elbert W., Optical tooling application on the Los Alamos Meson Physics Facility (LAMPF) accelerator, 116
Curcio, Michael E., System alignment advantages of diamond-machined optics, 14
Cusumano, S. J., Active alignment of the feedback mirror in a half symmetrical unstable resonator with an inner axicon, 233
DeHainaut, C. R., Active alignment of the feedback mirror in a half symmetrical unstable resonator with an inner axicon, 233
Dickey, F. M., Common collimator approach to alignment and performance testing of laser ranger/designators and thermal imaging systems, a, 71
Elbaum, Marek, Ultimate limits in optical alignment, 88
Fehniger, Michael J., Alignment of a full aperture system test of a Cassegrain telescope, 21
Field, Robert A., Alignment of large aperture optical systems using a bi-directional telescope and a variable offset periscope, 51
——, Heterodyne interferometer for alignment of the two elements of a reflaxicon, 63
Godfrey, Thomas E., Boresighting of airborne laser designator systems, 78
Graham, D., Alignment of a four meter Ritchey-Chrétien telescope, 138
Harned, Noreen, Alignment and evaluation of the cryogenic corrected infrared astronomical satellite (IRAS) telescope, 163
Harned, Robert, Alignment and evaluation of the cryogenic corrected infrared astronomical satellite (IRAS) telescope, 163
Harrison, Ronald F., Optical tooling application on the Los Alamos Meson Physics Facility (LAMPF) accelerator, 116
Henrist, M., Modular alignment system for spacecrafts, 197
Hinkal, Sanford W., Magnetic field satellite (MAGSAT) spacecraft vector magnetometer calibration, 190
Hodor, J. R., Shearing interferometer block as a precision angular datum reference, 57
Holly, S., Active intracavity alignment system using a dynamic Hartmann sensor approach, 100
Hoose, John F., Alignment system devices for medium repetition rate glass fusion lasers, 210
Huang, C-C., Shearing interferometer block as a precision angular datum reference, 57
Jungwirth, D., Active intracavity system using a dynamic Hartmann sensor approach, 100
Maliase, D., Modular alignment system for spacecrafts, 197
Mattson, E. J., Interferometric alignment of multi-element optical systems, 5
McCarthy, Arthur E., Technique for precise alignment of small diameter lasers, 128
McDonough, David, Telescope coalignment system for the Multiple Mirror Telescope (MMT), 154
Melugin, Ramsey, Alignment and evaluation of the cryogenic corrected infrared astronomical satellite (IRAS) telescope, 163
Mills, J. P., Optical alignment of the Airborne Laser Laboratory's gas dynamic laser cavity, 229
Moeller, C. E., Optical alignment of the Airborne Laser Laboratory's gas dynamic laser cavity, 229
Monfils, A., Modular alignment system for spacecrafts, 197
Myers, R., Interferometric alignment of multi-element optical systems, 5
Nowakowski, Jerry, Ultimate limits in optical alignment, 88
O'Callaghan, F. G., Optical alignment of high resolution Fourier transform spectrometers, 94
Ott, L., Alignment of a four meter Ritchey-Chrétien telescope, 138
Reavell, F. C., Precision construction of optical systems, 2
Ruda, Mitchell, Alignment of off-axis aspheric surfaces, 29
Saxman, A., Antares automatic beam alignment system, 214
Schenkel, Frederick W., Three-axis angular monitoring system for the magnetic field satellite (MAGSAT) mission, a, 179
Schoening, W., Alignment of a four meter Ritchey-Chrétien telescope, 138
Schreibam, Martin, Alignment design for a cryogenic telscope, 171
Scott, Paul W., Analytical method for interferometric alignment of reflaxicons, 107
Shack, Roland V., Influence of alignment errors of a telescope system on its aberration field, 146
Shafer, David, Optimized alignment—insensitive two-element laser beam expander/steerer, 9
Simmons, J. E., Alignment of a four meter Ritchey-Chrétien telescope, 138
Sledge, R. L., Common collimator approach to alignment and performance testing of laser ranger/designators and thermal imaging systems, a, 71
Smith, W. S., Interferometric alignment of multi-element optical systems, 5
Southwell, W. H., Analytical method for interferometric alignment of reflaxicons, 107
Swain, David M., Alignment of large aperture optical systems using a bi-directional telescope and a variable offset periscope, 51
——, Centration of a linear cone to the optical axis of a reflaxicon, 131
Swann, T., Antares automatic beam alignment system, 214
Sweatt, William C., Alignment and focusing device for a multibeam laser system, 225
Tarabocchia, M., Active intracavity alignment system using a dynamic Hartmann sensor approach, 100
Thompson, Kevin, Influence of alignment errors of a telescope system on its aberration field, 146
Thurston, Thomas H., Electronic autocollimators, 46
Tubbs, Eldred F., Alignment of a two-beam interferometer, 123
Welford, W. T., Precision construction of optical systems, 2
White, J. R., Common collimator approach to alignment and performance testing of laser ranger/designators and thermal imaging systems, a, 71
Wise, Timothy D., Alignment techniques required by precise measurement of effective focal length, 37
Young, Philip, Alignment design for a cryogenic telescope, 171

SUBJECT INDEX

Aberration field, influence of alignment errors of a telescope system on its, 146
Accelerator, optical tooling application on the Los Alamos Meson Physics Facility (LAMPF), 116
Active alignment of the feedback mirror in a half symmetrical unstable resonator with an inner axicon, 233
Active intracavity alignment system using a dynamic Hartmann sensor approach, 100

Airborne laser designator systems, boresighting of, 78
Airborne Laser Laboratory's gas dynamic laser cavity, optical alignment of the, 229
Alignment advantages of diamond-machined optics, system, 14
Alignment of the Airborne Laser Laboratory's gas dynamic laser cavity, optical, 229
Alignment design for a cryogenic telescope, 171
Alignment errors of a telescope system on its aberration field, influence of, 146
Alignment and evaluation of the cryogenic corrected infrared astronomical satellite (IRAS) telescope, 163
Alignment of the feedback mirror in a half symmetrical unstable resonator with an inner axicon, active, 233
Alignment and focusing device for a multibeam laser system, 225
Alignment of a four meter Ritchey-Chrétien telescope, 138
Alignment of a full aperture system test of a Cassegrain telescope, 21
Alignment of high resolution Fourier transform spectrometers, optical, 94
Alignment—insensitive two-element laser beam expander/steerer, optimized, 9
Alignment of large aperture optical systems using a bi-directional telescope and a variable offset periscope, 51
Alignment of multi-element optical systems, interferometric, 5
Alignment of off-axis aspheric surfaces, 29
Alignment and performance testing of laser ranger/designators and thermal imaging systems, a common collimator approach to, 71
Alignment of reflaxicons, analytical method for interferometric, 107
Alignment of small diameter lasers, technique for precise, 128
Alignment system, Antares automatic beam, 214
Alignment system devices for medium repetition rate glass fusion lasers, 210
Alignment system for spacecrafts, modular, 197
Alignment system using a dynamic Hartmann sensor approach, active intracavity, 100
Alignment systems, evolution of Shiva laser, 204
Alignment techniques required by precise measurement of effective focal length, 37
Alignment of a two-beam interferometer, 123
Alignment of the two elements of a reflaxicon heterodyne interferometer for, 63
Alignment, ultimate limits in optical, 88
Analytical method for interferometric alignment of reflaxicons, 107
Angular datum reference, shearing interferometer block as a precision, 57
Angular monitoring system for the magnetic field satellite (MAGSAT) mission, a three-axis, 179
Antares automatic beam alignment system, 214
Aperture optical systems using a bi-directional telescope and a variable offset periscope, alignment of large, 51
Aperture system test of a Cassegrain telescope, alignment of a full, 21
Application on the Los Alamos Meson Physics Facility (LAMPF) accelerator, optical tooling, 116
Aspheric surfaces, alignment of off-axis, 29
Astronomical satellite (IRAS) telescope, alignment and evaluation of the cryogenic corrected infrared, 163
Autocollimators, electronic, 46
Automatic beam alignment system, Antares, 214
Axicon, active alignment of the feedback mirror in a half symmetrical unstable resonator with an inner, 233
Axis angular monitoring system for the magnetic field satellite (MAGSAT) mission, a three-, 179
Axis aspheric surfaces, alignment of off-, 29
Axis of a reflaxicon, centration of a linear cone to the optical, 131

Beam alignment system, Antares automatic, 214
Beam expander/steerer, optimized alignment—insensitive two-element laser, 9
Beam interferometer, alignment of a two-, 123
Bi-directional telescope and a variable offset periscope, alignment of large aperture optical systems using a, 51
Block as a precision angular datum reference, shearing interferometer, 57
Boresighting of airborne laser designator systems, 78

Calibration, magnetic field satellite (MAGSAT) spacecraft vector magnetometer, 190
Cassegrain telescope, alignment of a full aperture system test of a, 21
Centration of a linear cone to the optical axis of a reflaxicon, 131
Chrétien telescope, alignment of a four meter Ritchey-, 138
Coalignment system for the Multiple Mirror Telescope (MMT), telescope, 154
Collimator approach to alignment and performance testing of laser ranger/designators and thermal imaging systems, a common, 71
Common collimator approach to alignment and performance testing of laser ranger/designators and thermal imaging systems, a, 71
Cone to the optical axis of a reflaxicon, centration of a linear, 131
Construction of optical systems, precision, 2
Corrected infrared astronomical satellite (IRAS) telescope, alignment and evaluation of the cryogenic, 163
Cryogenic corrected infrared astronomical satellite (IRAS) telescope, alignment and evaluation of the, 163
Cryogenic telescope, alignment design for a, 171

Data reference, shearing interferometer block as a precision angular, 57
Design for a cryogenic telescope, alignment, 171
Designator systems, boresighting of airborne laser, 78
Designators and thermal imaging systems, a common collimator approach to alignment and performance testing of laser ranger/, 71
Devices for medium repetition rate glass fusion lasers, alignment system, 210
Diameter lasers, technique for precise alignment of small, 128
Diamond-machined optics, system alignment advantages of, 14
Dynamic Hartmann sensor approach, active intracavity alignment system using a, 100
Dynamic laser cavity, optical alignment of the Airborne Laser Laboratory's gas, 229

Effective focal length, alignment techniques required by precise measurement of, 37
Electronic autocollimators, 46
Elements of a reflaxicon, heterodyne interferometer for alignment of the two, 63
Errors of a telescope system on its aberration field, influence of alignment, 146
Evaluation of the cryogenic corrected infrared astronomical satellite (IRAS) telescope, alignment and, 163
Evolution of Shiva laser alignment systems, 204
Expander/steerer, optimized alignment—insensitive two-element laser beam, 9

Feedback mirror in a half symmetrical unstable resonator with an inner axicon, active alignment of the, 233
Focal length, alignment techniques required by precise measurement of effective, 37
Focusing device for a multibeam laser system, alignment and, 225
Four meter Ritchey-Chrétien telescope, alignment of a, 138
Fourier transform spectrometers, optical alignment of high resolution, 94
Full aperture system test of a Cassegrain telescope, alignment of a, 21
Fusion lasers, alignment system devices for medium repetition rate glass, 210

Gas dynamic laser cavity, optical alignment of the Airborne Laser Laboratory's, 229
Glass fusion lasers, alignment system devices for medium repetition rate, 210

Half symmetrical unstable resonator with an inner axicon, active alignment of the feedback mirror in a, 233
Hartmann sensor approach, active intracavity alignment system using a dynamic, 100
Heterodyne interferometer for alignment of the two elements of a reflaxicon, 63
High resolution Fourier transform spectrometers, optical alignment of, 94

(IRAS) telescope, alignment and evaluation of the cryogenic corrected infrared astronomical satellite, 163
Imaging systems, a common collimator approach to alignment and performance testing of laser ranger/designators and thermal, 71
Influence of alignment errors of a telescope system on its aberration field, 146
Infrared astronomical satellite (IRAS) telescope, alignment and evaluation of the cryogenic corrected, 163
Inner axicon, active alignment of the feedback mirror in a half symmetrical unstable resonator with an, 233
Insensitive two-element laser beam expander/steerer, optimized alignment—, 9
Interferometer for alignment of the two elements of a reflaxicon, heterodyne, 63
Interferometer block as a precision angular datum reference, shearing, 57
Interferometric alignment of multi-element optical systems, 5
Interferometric alignment of reflaxicons, analytical method for, 107
Interferometer, alignment of a two-beam, 123
Intracavity alignment system using a dynamic Hartmann sensor approach, active, 100

(LAMPF) accelerator, optical tooling application on the Los Alamos Meson Physics Facility, 116
Large aperture optical systems using a bi-directional telescope and a variable offset periscope, alignment of, 51
Laser alignment systems, evolution of Shiva, 204
Laser beam expander/steerer, optimized alignment—insensitive two-element, 9
Laser cavity, optical alignment of the Airborne Laser Laboratory's gas dynamic, 299
Laser designator systems, boresighting of airborne, 78
Laser ranger/designators and thermal imaging systems, a common collimator approach to alignment and performance testing of, 71
Laser system, alignment and focusing device for a multibeam, 225
Lasers, alignment system devices for medium repetition rate glass fusion, 210
Lasers, technique for precise alignment of small diameter, 128
Limits in optical alignment, ultimate, 88
Linear cone to the optical axis of a reflaxicon, centration of a, 131
Los Alamos Meson Physics Facility (AMPF) accelerator, optical tooling application on the, 116

(MAGSAT) mission, a three-axis angular monitoring system for the magnetic field satellite, 179
(MAGSAT) spacecraft vector magnetometer calibration, magnetic field satellite, 190
(MMT), telescope coalignment system for the Multiple Mirror Telescope, 154
Magnetic field satellite (MAGSAT) spacecraft vector magnetometer calibration, 190
Magnetometer calibration, magnetic field satellite (MAGSAT) spacecraft vector, 190
Measurement of effective focal length, alignment techniques required by precise, 37
Medium repetition rate glass fusion lasers, alignment system devices for, 210
Mirror in a half symmetrical unstable resonator with an inner axicon, active alignment of the feedback, 233
Mirror Telescope (MMT), telescope coalignment system for the Multiple, 154
Mission, a three-axis angular monitoring system for the magnetic field satellite (MAGSAT), 179
Modular alignment system for spacecrafts, 197
Monitoring system for the magnetic field satellite (MAGSAT) mission, a three-, 179
Multibeam laser system, alignment and focusing device for a, 225
Multi-element optical systems, interferometric alignment of, 5
Multiple Mirror Telescope (MMT), telescope coalignment system for the, 154

Off-axis aspheric surfaces, alignment of, 29
Offset periscope, alignment of large aperture optical systems using a bi-directional telescope and a variable, 51
Optical alignment of the Airborne Laser Laboratory's gas dynamic laser cavity, 229
Optical alignment of high resolution Fourier transform spectrometers, 94
Optical alignment, ultimate limits in, 88
Optical axis of a reflaxicon, centration of a linear cone to the, 131
Optical systems, interferometric alignment of multi-element, 5
Optical systems, precision construction of, 2
Optical systems using a bi-directional telescope and a variable offset periscope, alignment of large aperture, 51
Optical tooling application on the Los Alamos Meson Physics Facility (LAMPF) accelerator, 116
Optics, system alignment advantages of diamond-machined, 14
Optimized alignment—insensitive two-element laser beam expander/steerer, 9

Performance testing of laser ranger/designators and thermal imaging systems, a common collimator approach to alignment and, 71
Periscope, alignment of large aperture optical systems using a bi-directional telescope and a variable offset, 51
Precise alignment of small diameter lasers, technique for, 128
Precise measurement of effective focal length, alignment techniques required by, 37
Precision angular datum reference, shearing interferometer block as a, 57
Precision construction of optical systems, 2

Ranger/designators and thermal imaging systems, a common collimator approach to alignment and performance testing of laser, 71
Reference, shearing interferometer block as a precision angular datum, 57
Reflaxicon, centration of a linear cone to the optical axis of a, 131
Reflaxicon, heterodyne interferometer for alignment of the two elements of a, 63
Reflaxicons, analytical method for interferometric alignment of, 107
Repetition rate glass fusion lasers, alignment system devices for medium, 210
Resolution Fourier transform spectrometers, optical alignment of high, 94
Resonator with an inner axicon, active alignment of the feedback mirror in a half symmetrical unstable, 233
Ritchey-Chrétien telescope, alignment of a four meter, 138

Satellite (MAGSAT) spacecraft vector magnetometer calibration, magnetic field, 190
Satellite (IRAS) telescope, alignment and evaluation of the cryogenic corrected infrared astronomical, 163
Sensor approach, active intracavity alignment system using a dynamic Hartmann, 100
Shearing interferometer block as a precision angular datum reference, 57
Shiva laser alignment systems, evolution of, 204
Small diameter lasers, technique for precise alignment of, 128
Spacecrafts, modular alignment system for, 197
Spacecraft vector magnetometer calibration, magnetic field satellite (MAGSAT), 190
Spectrometers optical alignment of high resolution Fourier transform, 94
Steerer, optimized alignment—insensitive two-element laser beam expander/, 9

Surfaces, alignment of off-axis aspheric, 29
Symmetrical unstable resonator with an inner axicon, active alignment of the feedback mirror in a half, 233
System alignment advantages of diamond-machined optics, 14
System devices for medium repetition rate glass fusion lasers, alignment, 210
Systems, evolution of Shiva laser alignment, 204
Systems using a bi-directional telescope and a variable offset periscope, alignment of large aperture optical, 51

Technique for precise alignment of small diameter lasers, 128
Telescope, alignment design for a cryogenic, 171
Telescope, alignment and evaluation of the cryogenic corrected infrared astronomical satellite (IRAS), 163
Telescope, alignment of a four Ritchey-Chrétien, 138
Telescope, alignment of a full aperture system test of a Cassegrain, 21
Telescope coalignment system for the Multiple Mirror Telescope (MMT), 154
Telescope (MMT), telescope coalignment system for the Multiple Mirror, 154
Telescope system on its aberration field, influence of alignment errors of a, 146
Telescope and a variable offset periscope, alignment of large aperture optical systems using a bi-directional, 51
Test of a Cassegrain telescope, alignment of a full aperture system, 21
Thermal imaging systems, a common collimator approach to alignment and performance testing of laser ranger/designators and, 71
Three-axis angular monitoring system for the magnetic field satellite (MAGSAT) mission, a, 179
Tooling application on the Los Alamos Meson Physics Facility (LAMPF) accelerator, optical, 116
Transform spectrometers, optical alignment of high resolution Fourier, 94
Two-beam interferometer, alignment of a, 123
Two-element laser beam expander/steerer, optimized alignment—insensitive, 9

Ultimate limits in optical alignment, 88
Unstable resonator with an inner axicon, active alignment of the feedback mirror in a half symmetrical, 233

Variable offset periscope, alignment of large aperture optical systems using a bi-directional telescope and a, 51
Vector magnetometer calibration, magnetic field, satellite (MAGSAT) spacecraft, 190